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Teaching Reading Comprehension Using Jigsaw Technique to Eight Grade Students at SMP Negeri 16

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ABSTRACT

This study examines the effectiveness of the Jigsaw technique in improving reading comprehension among eighth-grade students at SMP Negeri 16 Palu. Reading comprehension is essential for academic success, yet many students struggle due to low motivation, limited vocabulary, and anxiety when reading English texts. To address these issues, a quasi-experimental design was used involving an experimental group taught with the Jigsaw technique and a control group taught using conventional methods. Both groups completed pre-tests and post-tests to assess their reading comprehension before and after the intervention. The results showed a significant improvement in the experimental group's reading comprehension scores compared to the control group. The mean post-test score for the experimental group was 82.47, while the control group scored 61.10, indicating a notable positive impact of the Jigsaw technique. Statistical analysis confirmed this difference was significant at the 0.05 level. The Jigsaw technique fostered cooperative learning by increasing student engagement and encouraging active participation. Group discussions allowed students to share interpretations and collaboratively analyze texts, which enhanced their ability to identify main ideas, supporting details, and text structures. Additionally, role division and repeated group interactions improved information recall and retention. In conclusion, the Jigsaw technique is an effective instructional strategy for enhancing students' reading comprehension, especially at the literal level. These findings support incorporating cooperative learning methods in English teaching to help students overcome common reading comprehension difficulties.

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Reading Comprehension, Jigsaw Technique and Quasi-experimental.

1. Introduction

The fact that English is an international language makes it one of the most crucial to learn. English is a foreign language that is crucial to the advancement of education in Indonesia. As claimed by Yuhananik (2018), reading ability is vital for students to understand scientific texts written in English. With adequate reading proficiency, students are expected to develop their knowledge concerning a specific context given to them to learn. According to Ariawan & Pratiwi (2017), reading comprehension is a type of reading activity that urges students to understand reading materials that involve appropriate association between word meaning and word symbol, assessment of meaning context that has been assumed to be present, selection of appropriate words, organization of ideas when the learning materials are read, idea storage, and the use of idea storage in multiple activities both in the present and the future times.

Emancipated Curriculum is currently being developed in Indonesia. The Minister of Education and Culture introduced Emancipated Curriculum as a means of addressing Indonesia's long-standing learning crisis, which has gotten worse as a result of the pandemic. Ikhsanuddin et al. (2024) conclude that the educational curriculum is dynamic. This is because, in its development, the curriculum must adapt to the needs and characteristics of students according to their times. The design of curriculum development must consider the needs, opinions, learning experiences, and interests of students as the primary factors, making the students themselves the center of education (Rahman, 2018; Tammasse et al., 2025.; Muslimat et al., 2025; Cahyani et al., 2025).

Reading may be a useful tool for students to learn and acquire information because it can aid in their absorption of and comprehension of the material they are interested in learning, as well as assist them in expanding their knowledge of academic subjects and general knowledge. Most research and knowledge come from books. If we don't read books, how

can we gain knowledge and information? Reading is intended to help students understand texts and help them learn in class. It also contributes significantly to the learning process because it can directly expand vocabulary. Reading is also the process of processing written symbols to obtain complete meaning and is a way to obtain new information, knowledge, and experiences. Reading is a complex skill that is influenced by many factors, including the reader's background, intelligence, interests, and attitudes, as well as external factors such as the form of the text and the environment in which the reader reads. In short, reading is the active process of understanding writing and interpreting the messages it contains (Kyeongjae et al., 2025; Junaid & Andini, 2025; Youngsun et al., 2024).

In the observation, the researcher found that students of SMP Negeri 16 Palu have some problems in learning English; there are psychological factors such as anxiety and lack of confidence that affect reading performance. As stated by Yuhananik (2018), the problem that appears is that the students do not have good motivation in reading a text because the students feel that the reading activity is boring and not interesting. So, most of the students become passive and lazy to read, exactly to read books. Students may feel intimidated by long or complex texts, which can hinder their ability to process information effectively when reading texts. Lack of vocabulary, which makes it difficult for them to understand the meaning of the whole text, may make them get stuck on unfamiliar words, hindering reading fluency and comprehension. Students also have problems understanding the text in the passage they are reading

Related to the above problems, the researcher proposed the Jigsaw technique to test its effectiveness. It is mentioned by Sulisworo et al. (2016) that Jigsaw is one of the many cooperative learning techniques. The purpose of this technique is to increase students' sense of responsibility for their learning and also for learning from other members in their group. Students work together with positive interdependence and are independently responsible. In the jigsaw learning model, students have many opportunities to express their opinions, process the information obtained, and improve their reading skills, in addition, the Jigsaw technique increases motivation, encourages active learning, and helps in the development of children's social and cooperation skills. Ginting (2022) argues the reading material is broken up into pieces using this strategy. Every member of the initial group is given a portion to thoroughly study. After that, students form expert groups to debate and comprehend the content by joining students from other groups studying the same area. Students then go back to their home groups and instruct the other members of the group on the portion they have learned. Students' reading comprehension and sense of personal accountability both increase as a result of this procedure.

2. Methodology

In this study, a quantitative approach was used using a quasi-experimental research design to investigate the effect of jigsaw technique on reading comprehension of grade VIII students in SMP Negeri 16 Palu.

Experimental	O1	X	O2
Control	O3		O4

Where :

X : Treatment of experimental group
O1 : pre test experimental group
O2 : post-test of experimental group
O3 : pre-test of control group
O4 : post-test of control group

The population in this study is the total number of individuals to be studied. According to Hossan, et al. (2023), populations allow the reader to focus on particular locations within a predefined scope, assist in defining the study's boundaries, and provide hints about the environment and context. In this research, the population is the ninth-grade students at SMPN 16 Palu, which are composed of five classes: VIIIA, VIIIB, VIIIC, VIIID, and VIIIE, and from these classes, there are a total of 156 students.

The jigsaw technique is the independent variable in this study, and the reading ability of students in class VIII of SMP Negeri 16 Palu is the dependent variable.

3. Result and Discussion

3.1 Result

After calculating the pre-test and post-test scores of students in the experimental and control groups, the researcher continued to analyze student data by calculating the deviation and square of students' deviations.

Table 1. Deviation and Square Deviation of the Experimental Group (VIII C)

No	Student's Initial	Pre – Test	Post -Test	Deviation	Squared Deviation
1	AH	66.66	90.00	23.34	544.76
2	AKA	33.33	76.66	43.33	1877.49
3	AR	46.66	86.66	40.00	1600.00
4	AF	43.33	86.66	43.33	1877.49
5	AAA	30.00	73.33	43.33	1877.49
6	AS	40.00	83.33	43.33	1877.49
7	AR	33.33	66.66	33.33	1110.89
8	AAM	40.00	80.00	40.00	1600.00
9	DG	40.00	80.00	40.00	1600.00
10	FNS	26.66	76.66	50.00	2500.00
11	HR	43.33	80.00	36.67	1334.69
12	KGJ	36.66	86.66	50.00	2500.00
13	KFR	46.66	73.33	26.67	711.29
14	MA	36.66	80.00	43.34	1878.36
15	MII	50.00	86.66	36.66	1343.96
16	MKA	43.33	80.00	36.67	1344.69
17	MR	26.66	80.00	53.34	2845.16
18	MRPA	23.33	86.66	63.33	4010.69
19	MA	56.66	90.00	33.34	1111.55
20	MS	46.66	86.66	40.00	1600.00
21	RF	33.33	86.66	53.33	2844.08
22	RJ	63.33	86.66	23.33	544.29
23	RA	53.33	90.00	36.67	1344.69
24	SR	66.66	93.33	26.67	711.29
25	SA	46.66	73.33	26.67	711.29
26	VE	36.66	66.66	30.00	900.00
27	Y	60.00	93.33	33.33	1110.89
28	ZTS	66.66	90.00	23.34	544.76

29	ZR	56.66	80.00	23.34	544.76
30	AP	53.33	80.00	26.67	711.29
31	MFM	40.00	86.66	46.66	2177.16
	TOTAL	1386.21	2556.56	1070.09	46291.5

The data shows an overall improvement in students' scores from the pre-test to the post-test, with a total deviation of 1070.09 points across 31 participants. The total square deviation is 46291.5, indicating a considerable variation in individual progress, with some students showing significant gains of up to 63.33 points.

Table 2. The Students' Score and Deviation of Control Group (VIII C)

No	Student's Initial	Pre – Test	Post -Test	Deviation	Squared Deviation
1	ANJ	30.00	53.33	23.33	544.29
2	ANL	30.00	56.66	26.66	710.76
3	A	40.00	53.33	13.33	177.68
4	AS	40.00	56.66	16.66	277.56
5	BA	50.00	66.66	16.66	277.55
6	BN	20.00	56.66	36.66	1343.96
7	DT	20.00	60.00	40.00	1600.00
8	FNI	26.66	60.00	33.34	1111.55
9	FK	53.33	60.00	6.67	44.48
10	FAU	30.00	60.00	30.00	900.0
11	GZS	46.66	60.00	13.34	177.95
12	MS	63.33	66.66	3.33	11.08
13	MKK	20.00	63.33	43.33	1877.49
14	MFS	33.33	56.66	23.33	544.29
15	MR	26.66	56.66	30.00	900.00
16	MZ	33.33	53.33	20.00	400.00
17	NA	53.33	70.00	16.67	277.89
18	NN	26.66	56.66	30.00	900.00
19	NZ	23.33	66.66	43.33	1877.48
20	RW	13.33	60.00	46.67	2178.09
21	RFR	60.00	66.66	6.66	44.35
22	RF	46.66	73.33	26.67	711.29
23	RA	36.66	63.33	26.67	711.29
24	RA	30.00	60.00	30.00	900.00
25	ZPA	56.66	70.00	13.34	177.95
26	ZPA	33.33	53.33	20.00	400.00
27	MZ	53.33	63.33	10.00	100.00

28	ANF	53.33	60.00	6.67	44.48
29	ZZ	43.33	66.66	23.33	544.28
30	FH	26.66	70.00	43.34	1878.36
	TOTAL	1119.91	1785.9	716.98	21644.1

Based on the table above, the experimental group achieved a pre-test mean score 44.72 and the control group's mean score was 37.33. After the treatment, the experimental group attained a post-test mean score of 82.47, whereas the control group recorded a lower mean of 61.10. The difference between the two groups is also reflected in the total deviation scores, where the experimental group achieved a score of 1070.09, which is notably higher than the figure obtained by the control group, which was 716.98. Furthermore, the sum of squared deviations for the experimental group amounted to 46291.5, exceeding the amount observed in the control group, which was 21644.1. These findings suggest that the use of Jigsaw technique had a substantial impact on the distribution of students' scores, particularly in enhancing reading comprehension performance. Moreover, the statistical test conducted at a 0.05 level of significance with 59 degrees of freedom revealed that the obtained t-value (205.8) exceeded the critical t-table value (1.674). This result confirms the acceptance of the alternative hypothesis (Ha), indicating that the use of word wall in teaching students' reading comprehension. Accordingly, the null hypothesis (H_0) was rejected.

Based on the data analysis, it can be concluded that the jigsaw technique significantly improved the students' reading comprehension skills in eighth grade at SMP Negeri 16 Palu, especially in literal level comprehension. The results showed that when using the jigsaw technique in teaching compared to the conventional teaching approach, students' reading comprehension scores significantly improved.

3.2 Discussion

Using a quasi-experimental method, this study aims to find out how effective the jigsaw technique is in improving the ability of SMPN 16 Palu students in class VIII in reading comprehension. An experimental group was involved in a reading activity using jigsaw, and a control group was given conventional instruction. Before the treatment, a pre-test was conducted to measure students' initial reading comprehension level. Four treatment sessions showed how digital jigsaw techniques can be integrated into classroom activities to support students' learning experiences.

The results showed that the jigsaw technique significantly improved students' reading comprehension, especially when it comes to understanding the literal elements of the description text. The interactive template allows for greater classroom engagement and helps students remember vocabulary more effectively. This technique, which combines visual appeal and technique, not only improves literal comprehension but also encourages students to engage more fully with the material they are reading.

Through cooperative learning of reading description text, jigsaw motivates students and encourages active participation in reading activities. the application of jigsaw technique can facilitate students' reading comprehension of the text, enrich their vocabulary, and improve their ability to comprehend information. As a result, Jigsaw proved to be not only an interesting tool, but also an effective medium to support overall reading proficiency.

This research began by giving a pre-test to the sample groups (experimental and control) to determine their initial knowledge. The test results showed that the average score in the experimental group (44.72) and the control group (37.33) were in the same category, namely their reading ability was still low. After the researcher obtained the pre-test results, then the researcher gave the treatment to the sample class. Before the treatment was given, the researcher explained the strategy used in this study. The researcher found that each student has their own level of mastery of reading comprehension, not all of them have a high level of understanding of the text. This was also caused by the lack of vocabulary in reading the text. Students only read repeatedly, but they do not understand what they read. This problem is also felt by previous researchers, students have difficulty getting the main idea and supporting details of descriptive text even though they have read it repeatedly due to lack of mastering vocabulary when finding unfamiliar words, and also students cannot be able to identify the general structure of the text properly. This is what makes it difficult for students to organize and describe the text, Finally, the researcher gave a post-test to the sample class to find out if there was an improvement after being given the treatment. The test showed that the average score in the experimental group (82.47) and the control group (61.10). this shows that there is a significant increase in students' scores.

1. Overall, the findings showed that the experimental group students' reading comprehension improved after being given treatment using the JIGSAW strategy. During the treatment process, the researcher focused on the use of the JIGSAW strategy in improving students' reading comprehension. Such as: Students collaborate in finding important information; in groups, students work together to identify important elements in descriptive texts such as Identification: An introduction about an object, inference or impression. Group discussion helps students to more easily find important information and understand the structure of the story.

2. Sharing interpretation and analysis; students in the group share their interpretation and analysis of the text, so they gain a deeper understanding from different perspectives. This helps them capture nuances and meanings that they might have missed if working alone.

3. It improves information recall and retention; repeated interaction and discussion of descriptive texts in groups helps improve information retention. When students discuss key points again with their peers, they are more likely to remember and understand the content of the text. Furthermore, the division of roles in text analysis; students are assigned specific roles, such as finding the main theme, analyzing characters, or identifying the plot. This division of roles ensures that every aspect of the text is analyzed in depth thus enhancing overall understanding.

4. The emphasis on active learning; JIGSAW encourages students to be more actively involved in the learning process, such as making predictions, analyzing the main idea, and conclusions or impressions of the story. These activities make it easier for students to internalize information from the text. By using JIGSAW strategy, students not only learn individually but also benefit from collaborative learning, which can significantly improve their scores in descriptive text comprehension.

The improvement of students' reading comprehension by using the JIGSAW strategy is supported by previous research by Silalahi (2018) who found that students felt happy in class because all students were active when they discussed the text.

Based on the findings of the research, the data shows that there is a significant difference between students' reading comprehension before and after treatment. This is because the results of data analysis also show that the t-count value (205.8) is higher than the t-table value (1.674). This means that the hypothesis is accepted, in other words that the JIGSAW strategy can improve the reading comprehension of students in grade VIII of SMP Negeri 16 Palu. This is evidenced by the results of statistical data analysis which shows an increase in students. Therefore, it can be concluded that there is a significant improvement in students' reading comprehension before and after the treatment using the JIGSAW strategy.

4. Conclusion

Based on the results of the data presented in the previous chapter, it can be concluded that the application of the jigsaw technique significantly improved the reading comprehension of grade VIII students at SMPN 16 Palu. This finding is supported by the comparison between the pre-test and post-test scores, where the t-count (205.8) is higher than the t-table (1.674). Therefore, the hypothesis proposed in this study was accepted. In addition, the findings suggest that the jigsaw technique serves as a useful tool in helping students to understand descriptive texts. In conclusion, the jigsaw technique in the learning process can be considered as an effective alternative to improve the reading ability of eighth grade students at SMP Negeri 16 Palu.

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